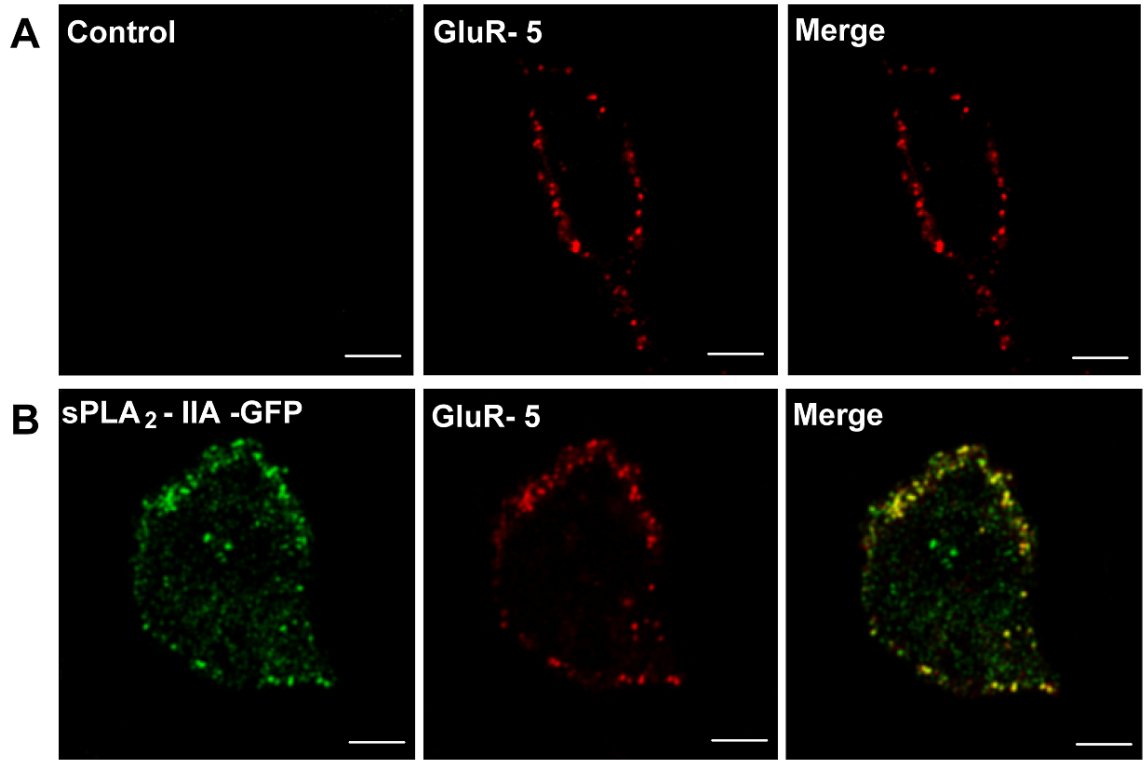
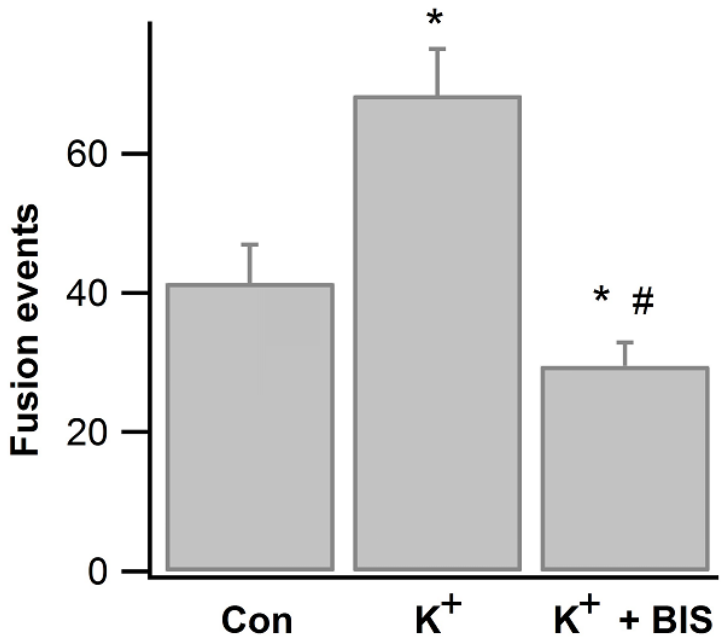
Supplementary Document



Supplementary Fig. 1.

Immunocytochemical analysis of GluR-5 expression in SH-SY5Y cells [A] before (as control) or [B] after transfection with $sPLA_2$-IIA-GFP (full length $sPLA_2$-IIA). Cells were fixed with 4% formaldehyde, blocked with 1.5% bovine albumin and incubated overnight with a goat polyclonal antibody to GluR-5 (Santa Cruz Biotech, diluted 1:100), followed by incubation for 1 hr with donkey anti-goat secondary antibody conjugated with AlexaFluor 555 (Invitrogen). Cells were washed with PBS and viewed using a LSM 510 Meta confocal laser scanning microscope. GFP-tagged $sPLA_2$-IIA molecules (full-length $sPLA_2$-IIA) can be seen as green dots (left lane), while red color represents the immunostaining of GluR5 (middle lane), and merge of left and middle are shown at the right lane. Scale = 5 μm.



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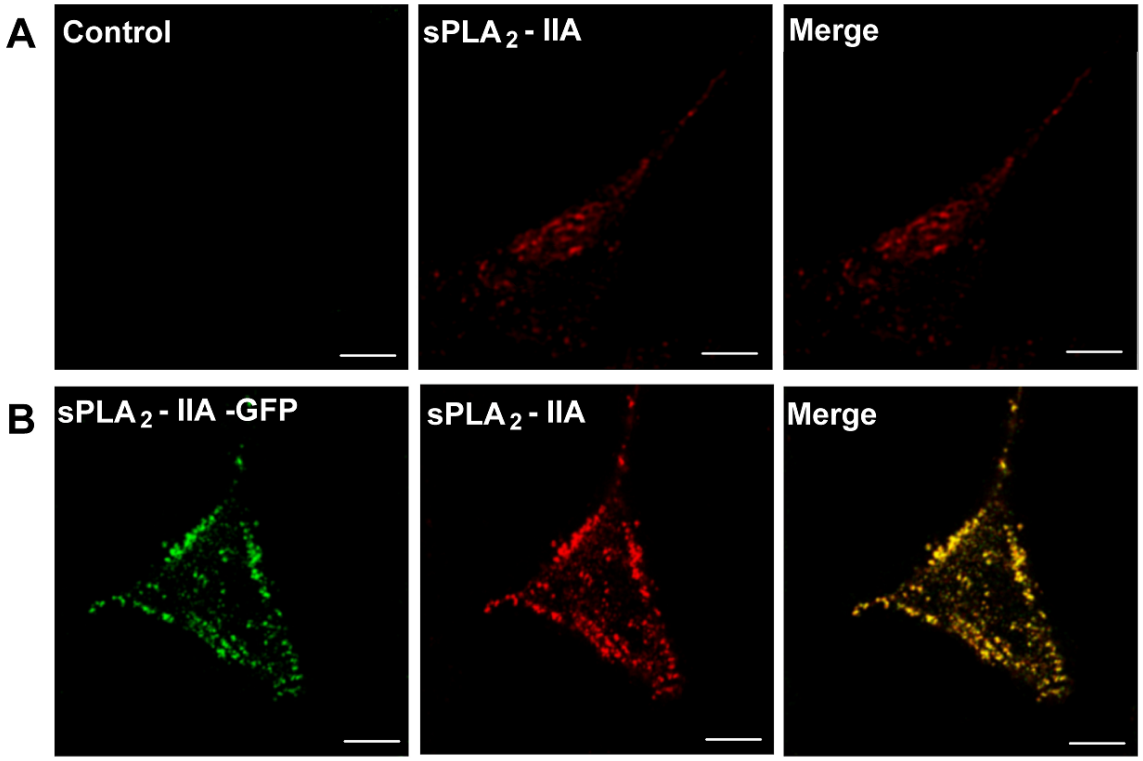
Supplementary Fig. 2

SH-SY5Y cells stably expressed with $sPLA_2$-IIA-GFP (full-length $sPLA_2$-IIA) were incubated in bath solution (150mM NaCl, 5.4mM KCL, 2mM $MgCl_2$, 2mM $CaCl_2$, 5mM glucose, 10mM HEPES, pH 7.4) (control, Con), or in high K^+ solution (37mM NaCl, 105mM KCL, 2mM $MgCl_2$, 5mM $CaCl_2$, 5mM glucose, 10mM HEPES, pH 7.4) without or with BIS (2.5 μM, 30 min pretreatment), followed by imaging of cells by TIRFM. The number of fusion events during a 2 min time interval was counted. Values represent mean± SEM (5-6 cells from 3 separate experiments).



Supplementary Fig. 3.

Immunocytochemical analysis of $sPLA_2$-IIA expression in SH-SY5Y cells [A] before (as control) or [B] after transfected with $sPLA_2$-IIA-GFP (full length $sPLA_2$-IIA). Cells were fixed with 4% formaldehyde, permeabilized with 0.1% TritonX-100, blocked with 1.5% bovine albumin and incubated overnight with a rabbit primary antibody to $sPLA_2$-IIA (diluted 1:5000), followed by incubation for 1 hr with goat anti-rabbit secondary antibody conjugated with Atto 647 NHS (Sigma). Cells were washed with PBS and viewed using a LSM 510 Meta confocal laser scanning microscope. GFP-tagged $sPLA_2$-IIA molecules (full-length $sPLA_2$-IIA) can be seen as green dots (left lane), while red color represents the immunostaining of $sPLA_2$-IIA (middle lane), and merge of left and middle are shown at the right lane. Scale = 5 μm.